Brief Description of the Site

The 17- mile portion of the Lower Passaic River Study Area (LPRSA) is an operable unit of the Diamond Alkali Superfund Site in Newark, New Jersey. The 17-mile portion is tidal and extends from Newark Bay upstream to Dundee Dam. EPA's response at the LPRSA began at a former manufacturing facility located at 80-120 Lister Avenue in Newark, New Jersey, at river mile (RM) 3.4. Manufacturing of DDT and other products began at this facility in the 1940s. In the 1950s and 1960s, the facility was operated by the Diamond Alkali Company (later purchased by and merged into Occidental Chemical Corporation, or OCC). Between 1951 and 1969, the Diamond Alkali Company manufactured the chemical 2,4,5-trichlorophenol (2,4,5-TCP) and the herbicides 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T), ingredients in the defoliant "Agent Orange." A by-product of the manufacturing was 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (2,3,7,8-TCDD), the most toxic form of dioxin. These substances have all been found in lower Passaic River (LPR) sediment and fish/crab tissue.

During the comprehensive investigation of the LPRSA, the sediments of the lower eight miles were found to be a major source of contamination to the approximately 17 miles of the LPR and to Newark Bay. Unlike rivers that flow in one direction, the tides in the LPR move water, suspended sediment, and contaminants back and forth twice a day. EPA undertook a targeted remedial investigation (RI) and focused feasibility study (FFS) of the lower 8.3 miles. In March 2016, EPA selected a remedy, which includes the construction of an engineered cap over the river bottom of the lower 8.3 miles of the LPRSA, dredging of the river bottom from bank to bank prior to placement of the cap, and implementation of institutional controls designed to protect the engineered cap.

An interim action, focusing on source control, targeting removal of sediments with higher contaminant concentrations in the upper 9 miles of the LPR, is being considered by EPA Region 2. The CSTAG's review focuses on evaluating the appropriateness of an interim action for the upper 9 miles; the Lower Passaic River Cooperating Parties Group's (CPG) proposed approach for interim remedy; draft remedial action objectives (RAOs); and other potential remedial alternatives looking at different Remedial Action Levels (RALS) and variable RALs.

The contaminated fine-grained sediments already within the LPR are the most significant continuing contaminant source, and will be addressed to a large degree by the planned bank to bank dredging and subsequent capping the lower 8.3 miles. This dredging and capping of the lower 8.3 miles will substantially reduce the potential for recontamination of the rest of the LPR and is currently being designed by OCC under EPA oversight. In Summer and Fall 2017, the CPG, who are performing the RI/FS for the LPRSA, asked EPA to evaluate whether an interim approach makes sense for the upper 9 miles of the LPR and if so, would EPA evaluate the CPG's specific approach to an interim remedy for the upper nine miles. As of February 2018, CPG completed the Baseline Human Health Risk Assessment and in December 2017 submitted revised drafts of the RI and the Baseline Ecological Risk Assessment.

At the time that the 17-mile LPRSA RI/FS was being developed, EPA formed a partnership with the U.S. Army Corps of Engineers (USACE), the State of New Jersey, the National Oceanic and Atmospheric Administration (NOAA) and U.S. Fish and Wildlife Service (USFWS) [referred to as "the Partner Agencies"], to conduct a joint study that would bring each agency's authorities to

bear on the complex environmental problems of the LPRSA. The Partner Agencies have worked with EPA in reviewing technical aspects of the 17-mile LPRSA RI/FS and lower 8.3-mile RI/FFS, including the risk assessments performed as part of those studies.

The LPR flows through densely populated and industrialized areas and ultimately into Newark Bay. The Dundee Dam is just above the head of tide at River Mile 17 and presents a hydraulic boundary. The three named tributaries to the LPR include the Saddle River, the Second River, and the Third River. Beginning in the early nineteenth century, the LPR watershed was a major center for industrial operations including cotton mills, manufactured gas plants, paper manufacturing and recycling facilities, and chemical manufacturing facilities. These facilities and adjacent municipalities discharged dioxins, petroleum hydrocarbons, polychlorinated biphenyls, pesticides, and metals to the LPR.

The CSTAG visited the site and met with the remedial project manager (RPM) and partner agencies from February 28 to March 01, 2018. Five stakeholder groups associated with the site were invited to present their views to the CSTAG of how the Region has applied the 11 sediment management principles in this project. Two invitees made presentations to the CSTAG: Community Advisory Group (CAG) and the CPG. Written comments were submitted by the CPG (*i.e.*, de maximis, inc.), NJDEP, NOAA and USFWS and the CAG.